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5.

Advanced air fields are provided with AA (probatly 27 mm) and figurer aircraft. During battle or near the front, fighter craft make routine continuous control flights over airfields and important installations. Their purpose is to deflect enemy aviation and gain time for other fighter oraft to take off. Bridgeheads and river crossings, for example, the annual energies on crossing the Elbe River in Germany, have fighter airoraft protection. Consequently they have no AA. During offense and just before an attack begins, fighter aircraft will be employed against enemy troops. On defense, ground artillery is employed. AA generally is in the rear area.

6.

As a general rule AA is not set up in forward areas. If any AA is used, it will be 37 mm mobile guns.

Probably 1,500 to 2,000 shells per plane were fired. In general, Af fire aimed at a definite target was extremely ineffective. However, massed fire around important objectives, such as the city of Moscow, was really effective. Guns were placed in great

concentration and fired, not at specific targets, but according to an area-wide pattern so that literally a wall of thre was created.

As a rule AAA guns and AA machine guns supporting tactical under field operations will not be dug in. A suitable place is cleaned off and leveled where the guns are

set up. The position may be 10 to 20 centimeters lover than the surface ground level. The purpose is to give stability to the gun, not necessarily to protect it. As usual the gun crews prepare their slit trenches.

The position may be 10 to 20 centimeters lower than the surrounding ground

the Red Army's AA defense of field forces against German planes in

only two German planes actually shot down by Soviet AA.

. 7.

9.

World War II

Not very effective

10.

11.

AA guns usually are towed by trucks or tracture. There is one place of multi-parrelled AA equipment. This is a four-barrelled machine-gum caliber 12.5 or 27.6 mounted on an American half-track (armored vehicle). All four barrels are fired by the same trigger. In a tank regiment there is one anti-aircraft machine-gun company with two platoons, each of which has two half-tracks mounted with four-barrel AA machine guns. Trains with AAA oars do exist; generally such cars are concentrated around large and important railway junctions and installations. Such cars would be under the control of Army or front headquarters and would probably not be attached to lower units.

12.

Allotment of AAA and Aa MG units will be made to points of most probable attack by enemy aviation and the assignment of such units from reserve will be regulated by developments in the situation. Generally speaking in the forward areas various level units contain their own AA defense elements. For example, a tank regiment has its

AA MG company; tank and mechanized divisions will have one AA regiment and as Army level there will be at least one an division.

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did use such re	AA rockets to not exist in the Soviet A sy. the Germans
forces.	ockets anothing mimilar to the German rockets in the Soviet
	receives the same tactical training as officers of other
arms except wit	th concentration on AA tactics.
	an AAA NOO in his unit (regimental) school would be given general
infantry tactic	es training.
	fire opened and conducted in AM combat
At the instruct	tion of the commanding officer. In general he will open fire when an
enemy plane com	mes within the effective range of his guns.
The white dans	This was an analysis by the same and
is part of the	ptive measure employed by Ald units is to cover the gun with a net which organisational equipment. Under field conditions the gun may be covered
by small trees	and branches collected locally.
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militery roads. In the obsence of such previously located AA installations the AA elements may leapfrog. In the deep rear zone, troop povements will be mostly by train with AA elements loaded on the train so as to gave a maximum of protection. 50X1-HUM 21. In movement of columns, AA guns are towed by trucks. The distance between mehicles will be 20 to 50 meters; the distance between platoons likewise will be 20 to 50 meters; the distance between patteries will be 75 to 100 meters; and that between divisions (battalions) will be up to 1,000 meters. 22. When a column is attacked the AA gune move to the side and are changed to firing position and open fire. Eon-anticircraft units, especially infantry, depending on the surroundings, will disperse and take cover. In the planning of a movement a PVD section makes definite plans for air defense measures during the movement. Observation posts are established in the column and procedure to be followed in case of an attack is worked out in advance. 23. Then a column halts along the road, for example for a rest, anti-aircraft guns will be put into firing position if the halt is to last for more than a few minutes. Artiaircraft spotters will be alerted in accordance with the PVO plan for the movement. 24, number 21. Other air defense Normal intervals are given in measures include mounting of machine guns on trucks, machine guns on half-tracks ready to operate, volley or salvo style fire from rifles or automatic rifles... 25. The best semouflage is obtained by making such movements during darkness or under for or rain or snow. Further it is possible to camouflage some supplies or personnel in trucks but during ordinary devlicht hours it is not practical to mamouflage a large-scale movement. movements where camouflave has been attempted by putting branches of trees onto trucks and guns.

such camouflage was worse than no camouflage at all. In the deep rear. movements may be made by daylight while in the area near the front, movements will be made chiefly at night. 26 During movements, fire direction is handled in contralized form on the banks of a plan framing by the divisional or unit artillery commander. The plan provides for various stages in the march, takes into account passage through any areas where artillery or AA fire would be forbidden, and provides for signals for communication purposes during the march. 27 28 In case of m attack by fighter-bombers the signal "Tozdukh (air attack)" would be given. The column would stop. Personnel of clements of the column would disperse to the right or left according to previously decided plan and unit commanders would try to produce volley fire from rifles. Unances are that there would not be time to convert AA gums to fire position. It could be expected that anti-aircraft fire from the machine-guns mounted up trucks and from those mounted on the helf-tracks could be made in time. If such attacks were frequent then the method of leap-frogging the El clements would be adopted. SECRET SECRET/SECURITY INFORMATION

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29,

The AA defense of a bivouse area of a division is worked out by the Chief of the Operation Section together with the Artillery Chief of the division. It is coordinated with the plans and chemical defense. It will include location of AA positions, location and numbering of aircraft spotting posts, provision for regular relief of personnel on duty at spotting posts, means of communication such as runners, telephone or radio, and signaling methods such as rockets.

30.

Main Supply Routes are provided with static anti-circraft protection by AA installations at regular intervals along the route.

31.

As a rule AAA units do not dig in pieces of bivouse arear during day or night halts for sleep or during short halts. Usually for a fairly long halt a suitable area will be cleaned off and leveled and the AA guns converted to fire position. Pieces are dug in only under static conditions as for example, the permanent defense of a city.

32.

The role of AA and AAA units during offensive action is as follows: AA elements will be deployed at the points most sensitive to enemy avoidion attack, such as, headquarters, bridges, railway installations and river crossings. The period of massing for an attack is especially important and AA elements will be deployed just as was described under question 29 for troop movements, that is, for defense of a bivouge area. A plan for the AA defense will be drawn up by the operational section is cooperation with the artillery commander covering in detail the location of AA positions, observation posts, and signal communications in advance.

33.

The functions of AA elements during pursuit is as follo : Tactics and technique will be to cover the most spots which are more sensitive to en my air attack of the forward rear; dispersion and deployment will be similar to those during a troop movement or march; while the command will be centralized at regimental level.

34.

As a general rule, the AA elements during the offense will be in the Second Echelon and therefore will not be in a position to ordinarily engage the enemy directly. It is hardly likely that a large caliber AA gun for example, 85 mm, would ever be used against a tank. On the other hand, some AA gune such as the 37 mm might very well be used in a ground role and AA machine-gune could cortainly be used in a secondary ground role.

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